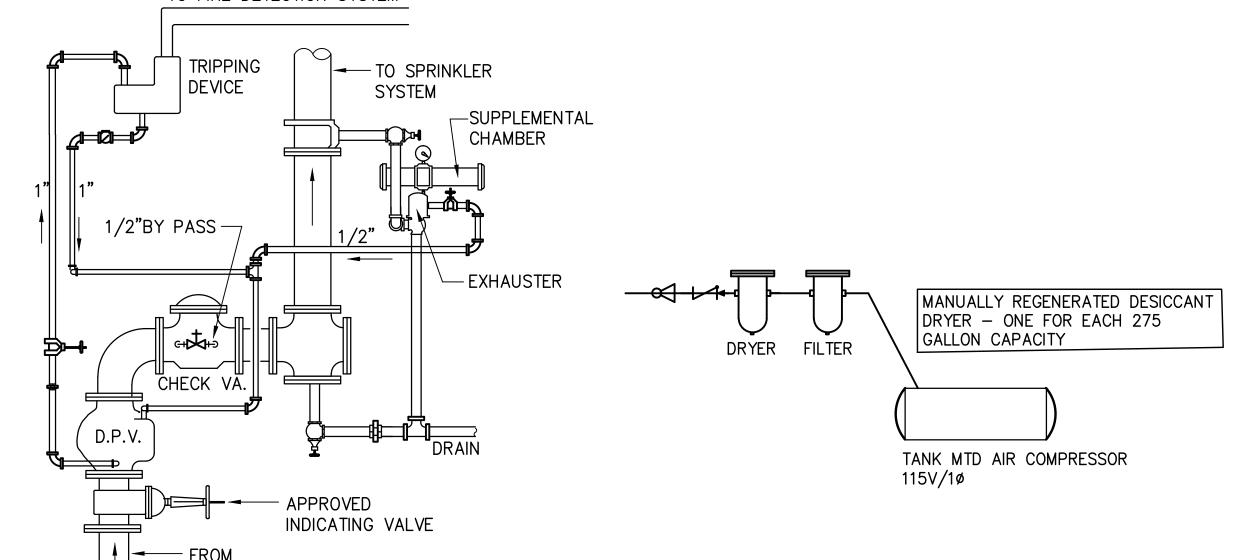
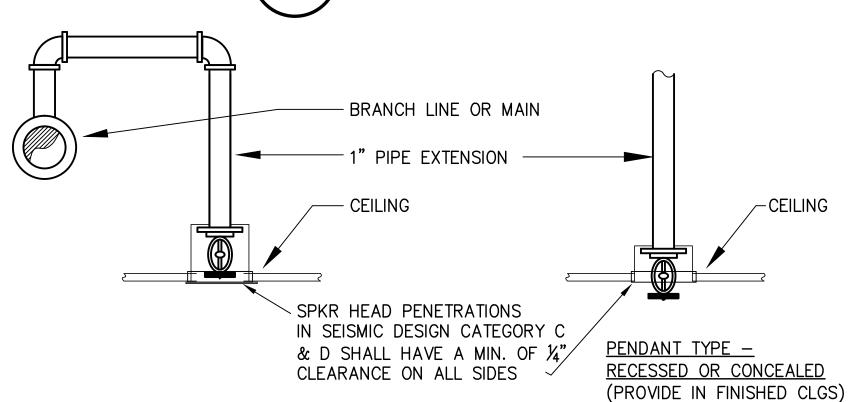


TUBING OR WIRING TO FIRE DETECTION SYSTEM

WATER SUPPLY



DRY PIPE VALVE DETAIL



-SPRINKLER HEADS SHALL BE CENTERED IN CEILING TILE;

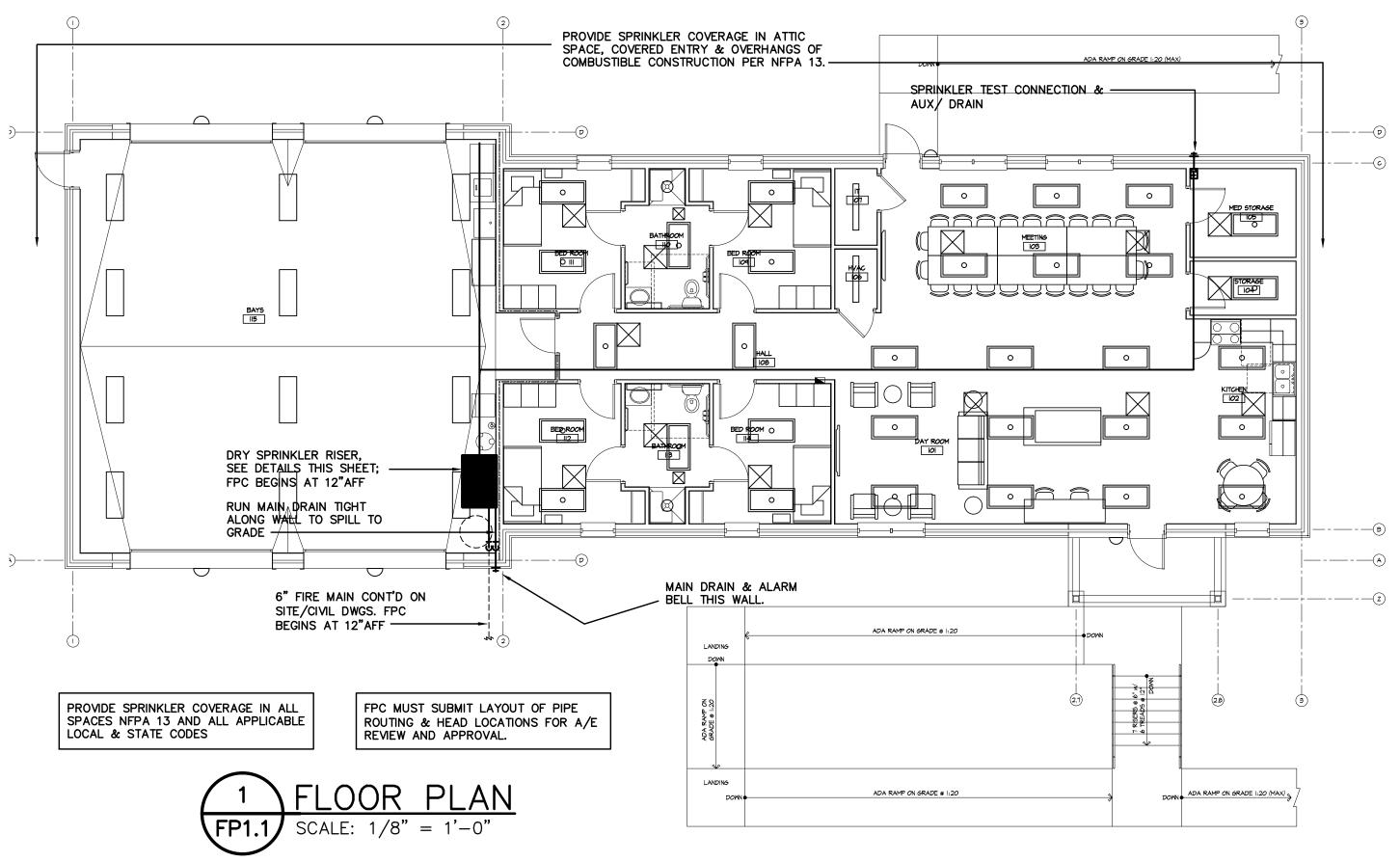
COORDINATE WITH ARCHITECT.

-PROVIDE APPROVED SPKR HEAD PROTECTION IN AREAS SUSCEPTIBLE TO

DAMAGE; COORDINATE WITH A/E.

-AT CONTR'S OPTION, "BRAIDED FLEX PIPING" MAY BE USED WHERE FPC OBTAINS PRIOR APPROVAL FROM AHJ.





GENERAL NOTES & LEGEND

- THESE DRAWINGS (CONTRACT DOCUMENTS) ARE FOR THE PURPOSE OF ESTABLISHING CRITERIA AND SUGGESTING PIPE ROUTING SOLUTIONS. THEY ARE NOT TO BE TAKEN AS SPRINKLER CONSTRUCTION
- 2. FPC IS RESPONSIBLE FOR DESIGN ADJUSTMENTS IN SPRINKLER HEAD LOCATIONS, SPRINKLER QUANTITY AND PIPING REQUIRED FOR FULL COMPLIANCE WITH THE STATE & LOCAL BUILDING CODE, NFPA STANDARDS, AND PROJECT PLANS AND SPECIFICATIONS.
- FPC SHALL OBTAIN AN UP TO DATE RCP PLAN FROM A/E. SPRINKLER HEAD LOCATIONS SHALL BE LOCATED IN CENTER OF TILE, UNLESS NOTED OTHERWISE, AND MAINTAIN A COORDINATED DESIGN EFFORT WITH OTHER CEILING COMPONENTS AND REVIEWED BY A/E FOR COMPLIANCE.
- 4. CONTRACTOR IS REQUIRED TO OBTAIN A COMPLETE SET OF A/E DESIGN AND CONSTRUCTION DOCUMENTS AND BE FAMILIAR WITH ALL ASPECTS OF THE A/E DESIGN BEFORE SUBMITTING A BID. NO CHANGES WILL BE ALLOWED DUE TO CONTRACTOR'S LACK OF KNOWLEDGE OF BLDG CONSTRUCTION AND NFPA REQUIREMENTS. COORDINATE ALL PIPE ROUTING WITH P,M,&E CONTRACTORS.
- 5. THE CONTRACTOR SHALL FURNISH ALL PARTS, MATERIALS AND LABOR REQUIRED FOR A COMPLETE AND OPERATING SYSTEM IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS, EVEN IF NEEDED ITEM IS NOT SPECIFICALLY INCLUDED IN PLANS OR SPECIFICATIONS.
- 6. THE CONTRACTOR MUST BE LICENSED BY THE STATE BOARD OF EXAMINERS AND MAY BE REQUIRED TO FURNISH EVIDENCE OF SATISFACTORY PERFORMANCE OF PREVIOUS AND COMPARABLE SPRINKLER SYSTEM DESIGN AND INSTALLATION. FPC DESIGNER SHALL HAVE A MINIMUM OF NICET III CERTIFICATION WITH STAMP AND SIGNATURE INDICATED ON SUBMITTED SHOP DWGS.
- 7. THE MINIMUM DESIGN CLASSIFICATION FOR THIS BLDG IS LIGHT HAZARD WITH 0.10GPM/SQFT WITH 1500 SQFT MINIMUM REMOTE AREA (225 SQFT PER HD).

STORAGE, MECHANICAL AREAS SHALL BE OH-1 WITH 0.15GPM/SQFT WITH 1500 SQFT MINIMUM REMOTE AREA

REMOTE AREA (1500 SQFT) OF DESIGN MAY BE MODIFIED AS ALLOWED AND/OR REQUIRED PER NFPA

ATTIC SPRINKLERS (LISTED FOR LH USE) ARE ALLOWED PER THE REQUIREMENTS OF NFPA 13.

8. BEFORE DESIGN & INSTALLATION, FPC MUST VERIFY WATER SUPPLY BY TEST (PER NFPA 291 OR AS DIRECTED BY AHJ). USING 2 HYDRANTS AS CLOSE TO THE POINT OF CONNECTION AS POSSIBLE, PREFERABLY WITNESSED OR PERFORMED BY A FIRE OFFICIAL.

CONTACT WATER AUTHORITIES BEFORE TEST TO VERIFY NORMAL SYSTEM STATUS AND DETERMINE TYPICAL FLUCTUATIONS IN AVAILABLE PRESSURE/FLOW AT THAT LOCATION DUE TO TANK FILL, PUMP STATUS, LOCAL DEMAND, ETC.

BASE DESIGN ON 10% LESS RESIDUAL PRESSURE AND 10% LESS AVAILABLE FLOW THAN TEST RESULTS. FPC CALCULATIONS TO START AT WATER MAIN CONNECTION UNDER STREET AND MUST INCLUDE ALL VALVES, FITTINGS, ETC.

NOTE: FLOW DATA ON A/E DOCUMENTS ARE FOR BIDDING PURPOSES ONLY & SHALL NOT BE USED FOR THE FPC DESIGN. SHOP DWGS WILL NOT BE APPROVED WITHOUT AN UPDATED FLOW TEST OBTAINED BY THE FPC FOR THEIR DESIGN AND CALCULATION. INCLUDE A PARTIAL SITE PLAN INDICATING LOCATIONS OF HYDRANTS AND RELATIVE ELEVATIONS TO BASE OF RISER. FLOW TEST SHALL BE NO MORE THAN ONE YEAR OLD FROM TIME OF SUBMITTAL TO A/E & AHJ FOR REVIEW.

9. ONLY STEEL PIPING SHALL BE USED (CRR OF 1.0 OR GREATER) FOR THIS PROJECT. SCHEDULE 5 PIPING IS NOT ALLOWED. ALL DRY, DELUGE, PRE-ACTION SYSTEM PIPE MUST BE GALVANIZED, INCLUDING ANY FITTINGS EXPOSED TO WEATHER. ONLY INTERNALLY GALVANIZED PIPING ALLOWED ON DRY AND PRE-ACTION SYSTEM.

- 10. SEISMIC REQUIREMENTS APPLY TO THIS PROJECT. HANDING, BRACING, & RESTRAINT OF FIRE SPRINKLER PIPING SHALL BE IN ACCORDANCE WITH SECTION 13.1.3 OF ASCE/SEI-7-05, NC BUILDING CODE AND SECTION 9.3 OF NFPA 13.
- 11. IF FPC ELECTS TO PREFABRICATE PIPING, ANY CHANGES BECAUSE OF CONFLICTS TO ACCOMMODATE EXISTING OR NEW CONSTRUCTION CONDITIONS SHALL BE CORRECTED AT NO COST TO THE OWNER. ANY WORK THAT IS INSTALLED PRIOR TO SPRINKLER PERMITTING & AHJ APPROVAL AND MUST BE REVISED BASED ON AHJ REVIEW, SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER.
- 12. FPC IS REQUIRED TO VERIFY AND COORDINATE WITH ELECTRICAL CONTRACTOR ALL REQUIRED CONNECTIONS AND ELECTRICAL REQUIREMENTS FOR COMPLETE SPRINKLER SYSTEM.
- 13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY THE PROPER FIRE-SAFING DETAIL FOR ALL PIPE PENETRATIONS THRU RATED & NON-RATED WALL AND FLOOR/CEILING ASSEMBLIES. SEE SHEET CD101.
- 14. A) PROVIDE CONCEALED (W/FLUSH COVER) PENDANT SPRINKLER HEADS IN ALL FINISHED CLGS.

B) WHERE DRY SYSTEM IS LOCATED IN AREAS WITH FINISHED CLGS; FPC SHALL PROVIDE DRY PENDANT

C) SPRINKLER HEADS SHALL BE CENTERED IN TILE; COORDINATE WITH A/E CEILING PLAN.

D) WHERE SUSCEPTIBLE TO CORROSION OR MECHANICAL DAMAGE, PROVIDE APPROVED HEAD PROTECTION

E) SPRINKLERS IN MECHANICAL ROOMS & UNCONDITIONED ATTIC SPACE SHALL BE AT LEAST 200-DEG F.

F) PROVIDE RETURN BEND FOR SPRINKLER CONNECTIONS.

G) FLEXIBLE PIPING TO HEADS ARE ALLOWED WHEN MEETING THE FOLLOWING MINIMUM REQUIREMENTS:

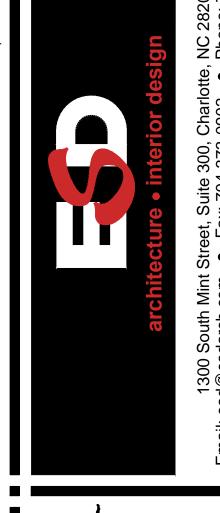
1) FM 1637 OR UL LISTED FLEXIBLE STAINLESS STEEL HOSE WITH THREADED FITTINGS. 2) STAINLESS STEEL BRAIDED JACKET. UNBRAIDED WILL NOT BE ACCEPTED.

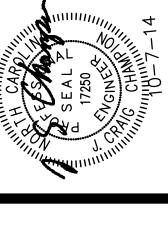
3) MINIMUM 1-INCH TRUE BORE INTERNAL CORRUGATED HOSE DIAMETER.

4) SHALL STRICTLY ADHERE TO MFR'S INSTALLATION REQUIREMENTS AND LIMITS; PIPING SHALL BE TAKEN OFF TOP OF BRANCH LINE/MAIN SAME AS A RETURN BEND.

15. FPC SHALL LOCATE ALL DEVICES, VALVES, DRAINS, EQUIPMENT, ETC. IN AN EASILY ACCESSIBLE LOCATION. WHERE ABOVE CEILING; FPC SHALL DESIGN PIPE ROUTING SUCH THAT ANY DEVICE, DRAIN, ETC. IS LOCATED ABOVE A LAY-IN OR ACCESSIBLE CEILING. WHENEVER SUCH DEVICE IS LOCATED WITHIN OR ABOVE A NON-ACCESSIBLE SPACE (CHASE, WALL, CLG, ETC.) FPC IS RESPONSIBLE FOR FURNISHING AND INSTALLATION OF ACCESS PANEL (COORDINATE LOCATION & A/P REQUIREMENTS WITH A/E SPECS & DWGS).







MS E TERN R

ISSUE DATE: 10-7-14 REVISION **REVISION 2:** REVISION 3: **REVISION 4:** PROJECT #: <u>14</u>-190-000 PROJECT ENGINEER: JCC

DRAWN BY: DT

CADD FILE NAME:

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